

Claims

1. A gene which is DNA coding for a protein designated as SEQ ID NO. 2 or DNA having a 90% or higher homology with the former DNA and coding for a protein with α -1,6-mannosyltransferase activity.

5 2. The gene according to claim 1, wherein the gene is DNA designated as SEQ ID NO. 1.

3. A protein which is coded by the gene of chain 1 and has α -1,6-mannosyltransferase activity.

10 4. A recombinant vector (designated under accession number KCTC 10583BP) comprising a DNA gene designated as SEQ ID NO. 1.

5. A *Hansenula polymorpha* *Hpoch2Δ* mutant strain deposited under accession number KCTC 10584BP.

15 6. The *Hansenula polymorpha* *Hpoch2Δ* mutant strain according to claim 5, comprising an expression vector for a sugar chain-modifying enzyme.

20 7. The *Hansenula polymorpha* *Hpoch2Δ* mutant strain according to claim 6, wherein the sugar chain-modifying enzyme is selected from the group consisting of α -1,2-mannosidase, mannosidase IA, mannosidase IB, mannosidase IC,

mannosidase II, N-acetyl glucosaminyltransferase I, N-acetyl glucosaminyltransferase II, galactosyltransferase, sialyltransferase and fucosyltransferase.

8. A process for producing a recombinant glycoprotein
5 with reduced glycosylation using the *Hansenula polymorpha* *Hpoch2Δ* mutant strain according to claim 5.

9. The process according to claim 8, wherein the *Hansenula polymorpha* *Hpoch2Δ* mutant strain comprises an expression vector for a sugar chain-modifying enzyme.

10 10. The process according to claim 8 or 9, wherein
the recombinant glycoprotein is selected from the group
consisting of cytokines, clotting factors, endothelial
growth factor, growth hormone releasing factor, growth
factors, angiostatin, tissue plasminogen activator,
15 plasminogen activator inhibitor, urokinase, immunoglobulins,
Bacillus amyloliquefaciens α-amylase, *Saccharomyces cerevisiae* aspartic protease, *Saccharomyces cerevisiae* invertase, *Trypanosoma cruzi* trans-sialidase, HIV envelope protein, haemagglutinin, enterokinase, herpes virus type-1
20 glycoprotein D and immunoglobulin.

11. A glycoprotein produced by the process of claim 8
or 9.